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ROBERT J. TAMBURRO
36 SULYMA STREET
CUMBERLAND, RI 02864

EXAMINER

MILORD, MARCEAU

ART UNIT PAPER NUMBER

2682

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,224

Applicant(s)

WAGNER ET AL.

Examiner

Marceau Milord

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Constien (US Patent No 6259932 B1) and Dosch (US Patent No 6587698 B1).

Regarding claims 1, 4-5, Constien discloses a computer system (figs. 1-3), comprising: a processor; a display (13 of figs. 2-3) coupled to said processor (col. 6, lines 11- 49), said display having an external casing in which a plurality of externally exposed recessed cavities are provided (9 of figs. 1-3; col. 2, lines 26-65; col. 4, lines 2- 46; col. 6, line 53- col. 7, line 54).

However, Constien does not specifically disclose the features of “ at least one recessed cavities is adapted to receive a radio module and another recessed cavity is adapted to receive an antenna module, the radio module being electrically connected to the antenna module”.

On the other hand, Dosch, from the same field of endeavor, discloses a plug-in communication card including a body, a transmit and receive means, an antenna for radio

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communication, and a displays means for displaying an operating state. The display means is integrated in a component together with the antenna. The component is implemented simultaneously as handle for the plug-in communication card for removing the card from a device into which it is inserted. The display means also causes an illumination along a contour of the antenna (col. 1, line 58- col. 2, line 36). Furthermore, Dosch also shows in figures 1 to 3, a radio module that is provide with means which permit the radio path quality to be determined. The field strength with which the base station reaches the antenna of the plug-in communication card in data transmission can be used as a criterion of the radio path quality. The antenna is enclosed between the inner part and the outer part, and they are provided with cavities (figs. 1-3; col. 3, line 42- col. 4, line 67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Dosch to the computer system of Constien in order to provide a plug-in communication card which permits a radio communication that is easy to carry out, and which is particularly suitable for radio communication of portable computers.

Regarding claim 2, Constien as modified discloses a computer system (figs. 1-3), wherein said radio module and antenna module are flush with the outer surface of the casing (col. 6, lines 36-62).

Regarding claim 3, Constien as modified discloses a computer system (figs. 1-3), wherein said radio module is electrically connected to said antenna module via a conductor contained within said display casing (col. 6, lines 22-31).

Claim 6 contains similar limitations addressed in claims 1, 4-5, and therefore is rejected under a similar rationale.

Regarding claim 7, Constien as modified discloses a computer system (figs. 1-3), wherein a radio module is electrically connected to said antenna module via a conductor contained within said display casing (col. 6, lines 22-31).

Regarding claim 8, Constien as modified discloses a computer system (figs. 1-3), wherein a radio module is electrically connected to a plurality of antenna modules via a conductor contained within said display casing (col. 6, line 53- col. 7, line 54).

Regarding claim 9, Constien as modified discloses a computer system (figs. 1-3), wherein said plurality of radio modules is two radio modules and said plurality of antenna modules is three antenna modules (col. 6, line 53- col. 7, line 54).

Regarding claim 10, Constien as modified discloses a computer system (figs. 1-3), wherein said radio module couples to other electronics in said computer system via a digital serial bus (col. 6, lines 15- 62).

Regarding claim 11, Constien as modified discloses a computer system (figs. 1-3), wherein said bus comprises a universal serial bus (col. 6, lines 15- 62).

Regarding claim 12, Constien discloses a display (13 of figs. 2-3) having a plurality of externally exposed recessed cavities (col. 6, lines 11- 49) formed therein (9 of figs. 2-3; col. 2, lines 26-65; col. 4, lines 2- 46; col. 6, line 53- col. 7, line 54).

However, Constien does not specifically disclose the features of radio and antenna modules can be removably inserted to provide a wireless communication capability for said electronic device.

On the other hand, Dosch, from the same field of endeavor, discloses a plug-in communication card including a body, a transmit and receive means, an antenna for radio

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communication, and a displays means for displaying an operating state. The display means is integrated in a component together with the antenna. The component is implemented simultaneously as handle for the plug-in communication card for removing the card from a device into which it is inserted. The display means also causes an illumination along a contour of the antenna (col. 1, line 58- col. 2, line 36). Furthermore, Dosch also shows in figures 1 to 3, a radio module that is provide with means which permit the radio path quality to be determined. The field strength with which the base station reaches the antenna of the plug-in communication card in data transmission can be used as a criterion of the radio path quality. The antenna is enclosed between the inner part and the outer part, and they are provided with cavities (figs. 1-3; col. 3, line 42- col. 4, line 67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Dosch to the computer system of Constien in order to provide a plug-in communication card which permits a radio communication that is easy to carry out, and which is particularly suitable for radio communication of portable computers.

Regarding claim 13, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein said radio module and antenna module are flush with the outer surface of the display (col. 6, lines 36-62).

Regarding claim 14, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein a radio module is electrically connected to an antenna module via a conductor contained within said display (col. 6, lines 22-31).

Regarding claim 15, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), including cavities for a plurality of radio modules (col. 7, lines 9-63).

Regarding claim 16, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), including cavities for a plurality of antenna modules (col. 7, lines 9-63).

Regarding claim 17, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), including cavities for a plurality of radio modules and a plurality of antenna modules (col. 7, lines 9-63).

Regarding claim 18, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein a radio module is electrically connected to an antenna module via a conductor contained within said display (col. 6, lines 22-31).

Regarding claim 19, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein a radio module is electrically connected to a plurality of antenna modules via a conductor contained within said display (col. 6, lines 22-31).

Regarding claim 20, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein said plurality of radio modules is two radio modules and said plurality of antenna modules is three antenna modules (col. 6, line 53- col. 7, line 54).

Regarding claim 21, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), including a recessed cavity for a communication hub interconnecting said radio module to said electronic device (col. 6, lines 11- 56).

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Regarding claim 22, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein said electronic device comprises a notebook computer (col. 6, lines 29- 49).

Regarding claim 23, Constien as modified discloses a display (13 of figs. 2-3) for an electronic device (col. 6, lines 11- 49), wherein said electronic device comprises a handheld computer (col. 6, line 36- col. 7, line 45).

Response to Arguments

2. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 703-306-3023. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

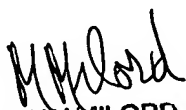
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MARCEAU MILORD

Marceau Milord

Examiner

Art Unit 2682


MARCEAU MILORD
PRIMARY EXAMINER

